YIFA 中国·伊发

YFGZ3 直流电源柜

Power supply cabinet

用途 Application

YFGZ3(GZG) 系列直流电源柜（智能型高频开关式）适用于电力系统发电厂、变电站等电气设备、继电保护装置直流电源系统，作为控制、信号、通信、保护及直流事故照明、动力装置等的电源设备。
本产品采用的高频开关式整流装置，具有体积小、质量轻、技术指标优越，模块化设计，N+1 热备份方式，便于“四遥”等特点。产品对蓄电池充电以及直流电源柜工作状况进行智能管理，保障蓄电池的使用寿命。装有中央监控器，具有远动功能，提高了直流系统的可靠性和自动化水平。
本产品符合 JB/T5777.4-2000《电力系统直流电源设备通用技术条件及安全要求》标准。

YFGZ3(GZG) series DC power supply cabinets (intelligent high frequency switch type) are suitable for the DC power supply systems of electric equipment and relay protection device in power plants and transformer substations, used as power supply device for controlling, signal, communication, protection as well as DC emergency lighting and power sets.
The product adopts high frequency switch type rectifying device, is featured with small volume, light quality, superior technical index, modular design, N+1 warm back-up mode, convenient “four remote”, etc. The product proceeds intelligent management to the charging condition of storage battery and working state of DC power supply cabinet, so that to guarantee service life of storage battery. It is equipped with central controller, with remote control function, improves reliability and automation level of DC system.
The product is in accordance with JB/T5777.4-2000 General specification and safety requirements for DC power supply equipment of power projects.

产品型号及含义 Product type and meaning

G N 3 - □ / □

- 电压等级 Voltage class
- 电池容量 Battery capacity
- 设计序号 Design No.
- 直流电源 DC power supply
- 封闭式柜 Enclosed type cabinet

使用环境条件 Environmental conditions

1、环境温度：-5℃ ~+40℃，月平均温度不大于 35℃；
2、海拔高度：2000m 及以下；
3、相对湿度：不大于 90%(25℃时)，设备运行时不允许有凝露；
4、使用场所无强烈振动和冲击，无爆炸危险的介质，无腐蚀和破坏绝缘的有害气体，无强磁场干扰。
1. Ambient temperature: -5℃ ~+40℃ , mean monthly temperature not higher than 35℃ ;
2. Altitude: 2000m and below ;
3. Relative humidity: not exceed 90% (at 25℃), the equipment should be free from condensation during running;
4. The installation site should be free of severe shock or impact, the surrounding medium should be free of explosion hazard or gas or conductive dust that would erode metal and destroy insulation, also should be free from strong magnetic field interference.

主要技术参数 Main technical parameters

项目 Item	单位 Unit	参数 Parameters
交流额定输入电压，三相四线制 AC rated input voltage, three-phase four-wire system	V	380 ± 15%（频率 50Hz ± 2Hz）
直流额定输出电压 DC rated output voltage	V	48, 110, 220
输出直流额定电流 Output DC rated current	A	1~200
蓄电池额定容量 Rated capacity of storage battery	Ah	20~1000
稳压精度 Voltage stabilizing accuracy		≤ ±0.5%
稳流精度 Current stabilizing accuracy		≤ ±0.5%
纹波系数 Ripple ratio		±0.1%
效率 Efficiency		≥ 90%
噪音 Noise	dB	≤ 55(A 级)
防护等级 Degree of protection		IP30
外形尺寸（高 × 宽 × 深）Outline size	mm	2260×800×600, 2260×1000×600, 2360×800×550

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结构特点 Structural feature

1、柜体为组合式结构

2、充电、浮充电装置采用多个高频整流模块并联，N+1 备份，自动均流。

3、监控功能完善，高智能化，采用大屏幕液晶汉字显示，声光告警，或采用触摸屏。全智能设计，对系统的各组成部分：交流配电、整流模块，直流馈电实现全参数本地及远端监控；主要监控量有：模块的开 / 关机、充电方式、输出电压调节、输出限流点整定、双路交流自动切换、电池自动管理等。

4、监控系统配有标准 RS-232 或 RS485 接口，与上位机联网，实现“四遥”功能。

5、对蓄电池自动管理及自动维护保养：实时监测蓄电池组的端电压，充、放电电流，自动控制均浮充以及定期维护均充。

6、按用户需要可具有温度补偿功能。

7、无论在任何情况下，当电网解列、交流电源失临时性时，蓄电池组都能无意断地向控制母线供电，确保断电保护、自动装置、高压开关均有控制和操作电源。

1. Cabinet body is combined structured

2. The charging/float charging device adopts multi high frequency rectification modules connected in parallel, N+1 back-up, automatic current sharing.

3. Perfect monitoring function, high intellectualized, large screen liquid crystal display in Chinese, light and sound alarm, or adopting touch screen. Full intelligent design, DC feeding to each system component like AC distribution and rectification module and realize full-parameter local and remote monitoring and control; main monitoring content covers start/stop of module, charging mode, output voltage regulation, setting of output current limiting point, double-circuit AC automatic switching, automatic management of battery, etc.

4. The monitoring system is equipped with standard RS-232 or RS485 interface, link up the networks of upper computer, realize “four remote” function.

5. Carry out automatic management and automatic maintenance to the storage battery: real-time monitor the terminal voltage of storage battery, charge and discharge current, control average float charging automatically and average charging, regular maintenances, etc.

6. Function of temperature compensation is available at request.

7. In any case, when the network islanding or when the AC power supply comes across power loss, the storage battery is able to supply power to the control bus without interruption, it guarantees power-off protection and guarantees control and operating power supply for automatic device and HV switch.

内部结构 Interior structure